

No.



# THE UNITED STATES OF AMERICA

**TO ALL TO WHOM THESE PRESENTS SHALL COME:**

## Seed Research of Oregon

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF Viable BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR SPLITTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, RED

'SR 5210'

In Testimony Whereof, I have hereunto set my hand  
and caused the seal of the Plant Variety  
Protection Office to be affixed at the City of  
Washington, D.C. this twenty-ninth day of June,  
in the year two thousand and seven.

Attest:

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

Agriculture

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

**APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE**  
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

<p>1. NAME OF OWNER Seed Research of Oregon</p> <p>4. ADDRESS (Street and No., or P.O. Box, City, State, and ZIP Code, and Country) 27630 Llewellyn Rd. Corvallis, OR 97333</p> <p>7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) Division of Research Seeds</p> <p>10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Dr. Leah A. Brilman Seed Research of Oregon 27630 Llewellyn Rd. Corvallis, OR 97333</p>		<p>2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME SRX 52LAV</p> <p>5. TELEPHONE (Include area code) 541-758-9115</p> <p>6. FAX (Include area code) 541-752-2065</p> <p>8. IF INCORPORATED, GIVE STATE OF INCORPORATION MO</p> <p>9. DATE OF INCORPORATION</p>	<p>3. VARIETY NAME SR 5210</p> <p>FOR OFFICIAL USE ONLY</p> <p>PVPO NUMBER 200300242</p> <p>FILING DATE May 5, 2003</p>
			<p>FILING AND EXAMINATION FEES: <b>\$ 3652 -</b></p> <p>FEES RECEIVED <b>DATE 5/5/03</b></p> <p>CERTIFICATION FEE: <b>\$ 768.00</b></p> <p>DATE 6/12/2007</p>
11. TELEPHONE (Include area code) 541-758-9115	12. FAX (Include area code) 541-752-2065	13. E-MAIL srofarm@attglobal.net	14. CROP KIND (Common Name) Strong creeping red fescue
15. GENUS AND SPECIES NAME OF CROP Festuca rubra ssp. rubra		16. FAMILY NAME (Botanical) Poaceae	17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<p>18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety</li> <li><input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness</li> <li><input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety</li> <li><input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional)</li> <li><input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership</li> <li><input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)</li> <li><input checked="" type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (MAB# 1005 Plant Variety Protection Office)</li> </ul>		<p>19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 8(a) of the Plant Variety Protection Act.</p> <p><input type="checkbox"/> YES (If "yes", answer items 20 and 21 below)      <input checked="" type="checkbox"/> NO (If "no," go to Item 22)</p> <p>20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?</p> <p><input type="checkbox"/> YES      <input type="checkbox"/> NO</p> <p>21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?</p> <p><input type="checkbox"/> FOUNDATION      <input type="checkbox"/> REGISTERED      <input type="checkbox"/> CERTIFIED</p> <p>23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?</p> <p><input type="checkbox"/> YES      <input checked="" type="checkbox"/> NO (If "yes", give country, date of filing or issuance and assigned reference number. (Please use space indicated on reverse.)</p>	
<p>22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U.S. OR OTHER COUNTRIES?</p> <p><input checked="" type="checkbox"/> YES      <input type="checkbox"/> NO</p> <p>IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)</p>			
<p>24. The owner(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or if a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.</p> <p>The undersigned owner(s) is/are the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.</p> <p>Owner(s) is/are informed that false representation hereon can jeopardize protection and result in penalties.</p>			
<p>SIGNATURE OF OWNER <i>Leah A. Brilman</i></p> <p>NAME (Please print or type) Leah A. Brilman</p> <p>CAPACITY OR TITLE Research Director</p>		<p>SIGNATURE OF OWNER</p> <p>NAME (Please print or type)</p> <p>CAPACITY OR TITLE</p> <p>DATE</p>	

200300242

**GENERAL:** To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filing fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the *Regulations and Rules of Practice*.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office  
Telephone: (301) 504-5518  
FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvpo/pvp.htm>

**ITEM**

- 18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;  
 (2) the details of subsequent stages of selection and multiplication;  
 (3) evidence of uniformity and stability; and  
 (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:  
 (1) identify these varieties and state all differences objectively;  
 (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and  
 (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
19. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See *Regulations and Rules of Practice*, Section 97.103).
22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

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21. **CONTINUED FROM FRONT** (Please provide a statement as to the limitation and sequence of generations that may be certified.)

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22. **CONTINUED FROM FRONT** (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

Sept. 2002

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23. **CONTINUED FROM FRONT** (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

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**NOTES:** It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the *Regulations and Rules of Practice*.)

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To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705.

Telephone: (301) 504-8089. <http://www.ams.usda.gov/lsg/seed.htm>

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 3.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD). USDA is an equal opportunity provider and employer.

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

ST-470 (02-10-2003) designed by the Plant Variety Protection Office with Word 2000. Replaces former versions of ST-470, which are obsolete.

2

**EXHIBIT A.****ORIGIN AND BREEDING HISTORY OF 'SR 5210' STRONG CREEPING RED FESCUE**

'SR 5210' strong creeping red fescue originated from a breeding program initiated in 1993 aimed at expanding the endophytes available in strong creeping red fescues while ensuring the endophytes demonstrated reliable transmission from plant to seed and selecting for high seed yields. In July of 1993 progeny of 25 lines of strong creeping red fescue were obtained from Dr. C. Reed Funk of Rutgers University. These twenty-five lines represented a long term collection and breeding program aimed at improving this species. SR 5210 is derived from the maternal progenies, through multiple cycles of selection, that trace back to five of these clones, DSC93-29E, DSC93-3E, SNSE93-55E, SNSE93-24E and SNSE93-40E. These five lines have the following origins. DSC93-29E, DSC93-3E and SNSE93-55E all trace back to the plot A85-130 which was collected from the Rose City Cemetery in Portland, OR in 1984. This material all contains what has been called the Rose City endophyte. SNSE93-24E traces to a collection from Route 30 in Atlantic City collected in the winter of 1991. This material contains what has been designated the AC-2 endophyte. SNSE93-40E traces back to a clone selected from the variety Ensvyla and the endophyte in it has been designated the Ensvyla endophyte.

Thirty-five plants from each of the original twenty-five lines were planted in a large breeder block along with thirty-five progeny each of twelve plants selected from the breeding program used to develop SR 5200E, including endophytic and non-endophytic lines, for a total of 945 plants. This field was extensively rogued based on plant color, number and size of seedheads and freedom from stem rust. After roguing a total of 69 plants were selected for individual harvest based on maturity and floret fill in the summer of 1994. After seed cleaning the twenty-nine plants with the best seed yield per plant and best appearance were selected and 1525 progeny planted in the fall of 1994.

In the spring of 1995 the resulting progeny were again rogued for color, stem rust and number of seedheads and were separated into six populations based on plant morphology and maturity. SR 5210 derives from that portion of the population we designated Lavender based on the color of flag used. These plants had a medium texture, dark green color, aggressive rhizome spread and large number of seedheads. We selected the best sixteen plants from this portion of the population and moved them to a new block in isolation. Eight of these plants were derived from DSC93-29E, one plant from DSC93-3E and two plants from SNSE93-55E, all from A85-130 with the Rose City endophyte. Four plants were from SNSE 93-24E with the AC-2 endophyte and one plant from SNSE93-40E with the Ensvyla endophyte. This seed was bulked and this population was determined to have the highest yield per plant, even considering it had been moved in the spring. Two hundred and fifteen progeny of this population were established in the fall

of 1995 and planted in a block with the original sixteen mother plants. The progeny were rogued for type and uniformity with approximately 30% removed and harvested in bulk. The mother plants were harvested individually.

In the fall of 1996 a new block was established utilizing thirty-five progeny from each of the following eleven mother plants, six from DSC 93-29E, three from SNSE 93-24E, one from SNSE93-55E and one from SNSE93-36E, for a total of 385 plants. Progeny of five mother plants were not established due to stem rust, lower yields or a different flowering date in 1996. An additional 385 plants were established from the bulk harvest of the entire block harvested in 1996. This block had approximately 10% of the plants removed due to stem rust, slightly earlier or not having the desired plant form. Breeder seed is produced from this block or from seed placed in cold storage.

The first foundation field was planted in 1998. Less than 1% variants were noted, primarily a few plants that were earlier than the remainder. This variety appears much more uniform in production than most strong creeping red fescues. SR 5210 is a stable and uniform strong creeping red fescue and is approved for foundation, registered and certified production. Uniformity has been observed through three generations of increase from 1998 to 2003.

200300242

**EXHIBIT B.**

**STATEMENT OF DISTINCTNESS OF 'SR 5210'  
STRONG CREEPING RED FESCUE**

'SR 5210' strong creeping red fescue most closely resembles 'Ensylva' strong creeping red fescue but can be distinguished from it by the following characteristics:

1. SR 5210 had a significantly later anthesis date in 1998 of 163.7 which was 2.7 days later than Ensylva and 1999 of 148.0 which was 2.1 days later than Ensylva (Tables 1 and 2).
2. SR 5210 had a significantly darker leaf color in 1998 of 6.0 which was 0.6 darker than Ensylva and 1999 of 6.9 which was 1.2 darker rating than Ensylva (Tables 3 and 4).
3. SR 5210 had a significantly more erect growth habit in 1998 of 2.4 which was rated 1.5 more erect than Ensylva on a 1-9 scale and 1999 of 2.2 which was 1.6 more erect than Ensylva (Tables 3 and 4).

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, MEAT, GRAIN AND SEED DIVISION  
BELTSVILLE, MARYLAND 20705

**OBJECTIVE DESCRIPTION OF CULTIVARS**  
**FINE LEAVED FESCUES**

(*Festuca spp.*)

NAME OF APPLICANT(S) Seed Research of Oregon, Inc. <small>(BT: 5/9/2007 per applicant's authorization)</small>	I VARIETY NAME OR TEMPORARY DESIGNATION I SR 5210
ADDRESS (Street and No., or R.F.D. No., City State, and ZIP Code) P.O. Box 1416 Corvallis, OR 97339	I FOR OFFICIAL USE ONLY I PVPO NUMBER I 200300242

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g. 0 / 8 / 9 / or 0 / 9 /) when number is either 99 or less or 9 or less. Descriptions of characters should represent those that are typical for the variety. Ranges may be given also. Measured data must be for SPACED PLANTS. Give additional description for all characteristics that cannot be adequately described in the form below. Append all pertinent comparative trial and evaluation data. The symbol "Δ" indicates decimal.

**Cultural Conditions**

All measurements must be on spaced plants with a minimum of (30 cm) between plants. A minimum of 30 plants and 60 data points must be used for all measurements. Plants must be established no later than the previous fall for spring and summer measurements. Trials should be irrigated and stem rest control practiced. Cultural conditions must be stated in comment section and plant number / data points shown in all tables.

**1. SPECIES**

- |  |   |
|--|---|
| <u>3</u> / 1 = <i>F. rubra</i> ssp. <i>commutata</i> (Chewings)    | 2 = <i>Festuca rubra</i> ssp. <i>litoralis</i> (Slender Creeping Red) |
| <u>3</u> = <i>F. rubra</i> ssp. <i>rubra</i> (Strong Creeping Red) | 4 = <i>F. ovina</i> (Sheep)   |
| <u>5</u> = <i>F. longifolia</i> (Hard)                             | 6 = <i>F. tenuifolia</i> (Fine-Leaved Sheep)                          |
| 7 = OTHER (Specify) _____  |   |

**2. PLOIDY**

- |                       |                   |                |               |               |
|-----------------------|-------------------|----------------|---------------|---------------|
| <u>3</u> /            | 1 = DIPLOID       | 2 = TETRAPLOID | 3 = HEXAPLOID | 4 = OCTOPLOID |
| <u> </u> / <u> </u> / | CHROMOSOME NUMBER |                |               |               |

**3. ADAPTATION (0 = NOT TESTED      1 = NOT ADAPTED      2= ADAPTED )**

- |                                  |                      |                         |                         |
|----------------------------------|----------------------|-------------------------|-------------------------|
| <u>2</u> / NORTHEAST             | <u>1</u> / SOUTHEAST | <u>2</u> / NORTHCENTRAL | <u>2</u> / PACIFIC N.W. |
| 2 / OTHER (Specify) Mid-Atlantic |                      |                         |                         |

200306242

**STANDARD CULTIVARS - Choose cultivars from same species and ploidy level.**

**F. rubra ssp.**

**F. ovina**

**F. longifolia**

**F. tenuifolia**

**commutata      litoralis      rubra**

11 = SHADOW	21 = DAWSON	31 = BOREAL	41 = BIGHORN	51 = AURORA	61 = SIMA
12 = JAMESTOWN	22 = MERLIN	32 = SHADEMASTER	42 = MX 86	52 = BILJART	62 = BAROK
13 = BANNER	23 = BARCROWN	33 = FLYER		53 = SCALDIS	
14 = KOKET		34 = ENSYLVIA		54 = SR 3000	
15 = JAMESTOWN II				55 = RELIANT	

71 = \_\_\_\_\_

(Specify Species)

**4. MATURITY**

**7/ MATURITY CLASS (1-9)**

- 1 = Very Early ( )  
3 = Medium Early ( Aurora, SR 3000 )  
5 = Medium ( Flyer, Shadow )  
7 = Late ( Jamestown, Banner, Claudia )

2 = Early ( Bighorn )

4 = ( Highlight, Koket )  
6 = ( Shademaster, Dawson )  
8 = ( Barcrown )

**HEADING DATE** (When 50% of plants in the variety have at least 3 spikes emerged from boot.)

1 / 0 / 6 / CALENDAR DAY.

  /  / DAYS EARLIER THAN . . . . . / /

SAME AS . . . . . 3 / 1 / Comparison Variety.

0 / 4 / DAYS LATER THAN . . . . . 3 / 2 /

**ANTHESIS DATE** (When 50% of plants in the variety have started anthesis.)

1 / 4 / 7 / CALENDAR DAY.

  /  / DAYS EARLIER THAN . . . . . / /

SAME AS . . . . . 3 / 1 / Comparison Variety.

0 / 3 / DAYS LATER THAN . . . . . 3 / 2 /

**5. PLANT HEIGHT** (Post - Anthesis) Middle tiller. Not to include tallest 3 heads.

**MATURE HEIGHT** (Ground to top of panicle - straightened.)

7 / 0 ▲ 9 / cm. HIGH

  /  ▲  / SHORTER THAN . . . . . / /

SAME AS . . . . . 3 / 4 / Comparison Variety.

  /  ▲  / TALLER THAN . . . . . / /

## FLAG LEAF HEIGHT (Ground to collar of flag leaf.)

3 / 0 ▲ 9 / cm. HIGH1 / ▲ / SHORTER THAN . . . . . / /

SAME AS . . . . . / / Comparison Variety.

1 / ▲ / TALLER THAN . . . . . / /

## 6. GROWTH HABIT (Mature - Fully headed - reproductive tillers)

2 / 1 = ERECT (Nezpur) 5 = SEMI-ERECT (Highlight) 9 = PROSTRATE

## 7. RHIZOMES

1 / 1 / mm. LENGTH1 / 1 / mm. WIDTH1 / 1 / mm. INTERNODE LENGTH7 / 1 = ABSENT (Highlight) 3 = WEAKLY CREEPING (Dawson) 5 = STRONGLY CREEPING ( )  
7 = VERY STRONGLY CREEPING (Flyer, Fortress) 9 =

## 8. LEAF CHARACTERISTICS

## TILLER LEAF (First leaf subtending flagleaf - after anthesis.) - Preferred Leaf.

1 / 1 ▲ 0 / cm. LENGTH (ligule to tip)      1 / 3 ▲ 4 / mm. WIDTH (at 1 cm from collar)1 / 2 ▲ 3 / cm. SHORTER THAN . . . 3 / 1 /      1 / ▲ / mm. NARROWER THAN . . . / /SAME AS . . . . . 3 / 4 /      SAME AS . . . . . 3 / 3 /1 / ▲ / cm. LONGER THAN . . . 1 / /      1 / 0 ▲ 4 / mm. WIDER THAN . . . . . 3 / 4 /

## FLAG LEAF

1 / 1 ▲ 4 / cm. LENGTH (ligule to tip)      1 / 3 ▲ 5 / mm. WIDTH (at 1 cm from collar)1 / 3 ▲ 2 / cm. SHORTER THAN . . . 3 / 1 /      1 / 0 ▲ 4 / mm. NARROWER THAN . . . 3 / 1 /SAME AS . . . . . 1 / /      SAME AS . . . . . 3 / 3 /1 / ▲ / cm. LONGER THAN . . . 1 / /      1 / 0 ▲ 3 / mm. WIDER THAN . . . . . 3 / 4 /

200300242

**LEAF BLADE** - Percent plants with :

GLAUCOSITY ( Sowing year )	:	<u>10</u> / <u>0</u> / ABSENT	<u>      </u> / <u>      </u> / PRESENT
ANTHOCYANIN	:	<u>10</u> / <u>0</u> / ABSENT	<u>      </u> / <u>      </u> / PRESENT
HAIRS ( Basal )	:	<u>4</u> / <u>6</u> / ABSENT	<u>5</u> / <u>4</u> / PRESENT
MARGINS ( Roughness )	:	<u>5</u> / <u>4</u> / ABSENT	<u>4</u> / <u>6</u> / PRESENT
MARGIN FOLDING	:	<u>5</u> / <u>4</u> / ROLLED INWARD ( Closed-Highlight )	<u>4</u> / <u>6</u> / FLAT ( Open-Jamestown )

**LEAF SHEATH** - Percent plants with :

ANTHOCYANIN ( Seedling 3 - 8 tillers )	:	<u>4</u> / <u>3</u> / ABSENT	<u>5</u> / <u>7</u> / PRESENT
AURICLE HAIRNESS	:	<u>2</u> / <u>4</u> / ABSENT	<u>7</u> / <u>6</u> / PRESENT
MARGINS	:	<u>3</u> / <u>2</u> / OPEN ( Highlight )	<u>6</u> / <u>8</u> / CLOSED ( Jamestown )

**GENETIC FOLIAGE COLOR (Summer)**7 / GREEN LEAF COLOR 1-9

1 = LIGHT      2 = ( Highlight )      3 = MEDIUM LIGHT      4 = ( Shadow )      5 = MEDIUM ( Jamestown )  
 6 = MEDIUM DARK ( Aurora, SR 3000 )      9 = DARK GREEN

       / OTHER COLOR        /        % PLANTS WITH

1 = BLUEGREEN      2 = GRAYGREEN      3 = BLUE      4 = POWDER BLUE      5 = SPECIFY \_\_\_\_\_

**9. PANICLE (Post - Anthesis):**5 / 5 ▲ 5 / cm. PANICLE LENGTH (tip to internode)       / 5 ▲ 9 / cm. SHORTER THAN . . . . . 3 / 1 /SAME AS . . . . . 3 / 4 /       /        ▲        / cm. LONGER THAN . . . . .        /        /1.5 / TYPE      1 = OPEN ( 57% )      2 = INTERMEDIATE ( 38% )      3 = COMPACT ( Appressed ) ( 5% )1.3 / ORIENTATION      1 = ERECT      9 = NODDING ( at anthesis )

200300242

PERCENTAGE PLANTS WITH:

BRANCH PUBESCENCE:   /  2  /  3  /   % GLABROUS        /  7  /  7  /   % PUBESCENT  
GLUME COLOR:   /  5  /  9  /   % GREEN        /  /  9  /   % YELLOWISH GREEN  
                /  /  1  /   % BLUISH GREEN        /  1  /  6  /   % PURPLISH  
                /  1  /  5  /   % REDDISH        /  /  /   % OTHER (Specify)

ANTHER COLOR:  
(Pre-dehiscent)   /  8  /  4  /   % YELLOWISH GREEN        /  /  4  /   % GREEN  
  /  /  9  /   % PURPLE        /  /  3  /   % BLUISH GREEN  
  /  /  /   % REDDISH        /  /  /   % OTHER (Specify)

10. SEED - From PVP nursery (not commercial sample). All seed just be processed similarly. Specify how data collected.

  8  /   SIZE CLASS (g / 1000 seed)      1 = .3 - .5 g (Barok)      2 = .5 - .7 g      3 = .7 - .9 g      9 = 1.7 g

  1  /  6  /  9  /  2  /   mg. PER 1,000 SEED (Seed should be oven dried at uniform humidity.)

  1  /  2  /  6  /  5  /   mg. LESS THAN . . . . .        3  /  3  /  

  1  /  1  /  2  /  1  /   mg. MORE THAN . . . . .        3  /  4  /  

LEMMA

  6▲5  /   mm. LEMMA LENGTH (average of 50)        1▲2  /   mm. LEMMA WIDTH (average of 50)  
  0▲5  /   mm. LESS THAN . . . . .        ▲  /   mm. LESS THAN . . . . .  
SAME AS . . . . .        3  /  2  /        SAME AS . . . . .        /  /    
  ▲  /   mm. MORE THAN . . . . .        0▲1  /   mm. MORE THAN . . . . .        3  /  4  /    
  /   HAIRS :      1 = ABSENT (Jamestown)      5 = SEVERAL      9 = MANY (Highlight)

AWNS

  1  /  0  /  0  /   % OF SEEDS WITH AWNS

  2▲0  /   mm. AWN LENGTH (of those seeds with awns)

PALEA

  /   HAIRS :      1 = ABSENT (Banner)      5 = SHORT (Scaldis)      9 = LONG (Jamestown)

200300242

**11. DISEASE** (0 = NOT TESTED      6 = MODERATELY RESISTANT      1 = HIGHLY SUSCEPTIBLE      4 = MODERATELY SUSCEPTIBLE  
9 = HIGHLY RESISTANT)

- |   |   |
|---|---|
| <input type="checkbox"/> / LEAF RUST <i>Puccinia crandallii</i>             | <input type="checkbox"/> / DOLLAR SPOT <i>Lanzia</i> and <i>Mollerdiscus</i> spp. |
| <input checked="" type="checkbox"/> / BROWN PATCH <i>Rhizoctonia solani</i> | <input type="checkbox"/> / STEM RUST <i>P. graminis</i>                           |
| <input type="checkbox"/> / MELTING-OUT <i>Drechslera poae</i>               | <input type="checkbox"/> / RED THREAD <i>Laetisaria fusciformis</i>               |
| <input checked="" type="checkbox"/> / LEAF SPOT                             | <input type="checkbox"/> / LEAF SPOT <i>Bipolaris sorokiniana</i>                 |
| <input type="checkbox"/> / NET BLOTHC <i>D. dictyoides</i>                  | <input type="checkbox"/> / POWDERY MILDEW <i>Erysiphe graminis</i>                |
| <input type="checkbox"/> / PYTHIUM BLIGHT <i>Pythium</i> spp.               | <input type="checkbox"/> / SNOW MOLD (Gray) <i>Typhula</i> <i>iotana</i>          |
| <input type="checkbox"/> / CHOKE <i>Acremonium</i> spp.                     | <input type="checkbox"/> / SNOW MOLD (Pink) <i>Gerlachia nivalis</i>              |
| <input checked="" type="checkbox"/> / OTHER Summer patch                    |   |

**12. INSECT** (0 = NOT TESTED      6 = MODERATELY RESISTANT      1 = HIGHLY SUSCEPTIBLE      4 = MODERATELY SUSCEPTIBLE  
9 = HIGHLY RESISTANT)

- / (Specify) \_\_\_\_\_

Must specify with or without endophyte present.

**13. STRESS TOLERANCES** (0 = NOT TESTED      1 - 9,      9 = BEST)

- |                                 |   |  |
|---------------------------------|---|--|
| <input type="checkbox"/> / HEAT | <input type="checkbox"/> / COLD               | <input type="checkbox"/> / WINTER COLD |
| <input type="checkbox"/> / SALT | <input checked="" type="checkbox"/> / DROUGHT | <input type="checkbox"/> / HEAVY METAL |

**14. GIVE RESEMBLANCE VALUE IN LEFT COLUMN AND VARIETY CODE NUMBER IN RIGHT COLUMN FOR VARIETY WITH WHICH COMPARISON IS MADE (1 = LESS THAN 2 = SAME AS, 3 = MORE ERECT, MORE RESISTANT, DENSER, MORE PERSISTENT, DARKER OR GREATER HEIGHT) USE STANDARD CULTIVARS LIST ABOVE.**

<u>RESEMBLANCE</u>	<u>CHARACTER</u>	<u>SIMILAR VARIETY</u>
<input checked="" type="checkbox"/> /	PLANT HABITAT (erectness) . . . . .	<input type="checkbox"/> / 3 / 4 /
<input type="checkbox"/> /	RHIZOME LENGTH . . . . .	<input type="checkbox"/> / /
<input checked="" type="checkbox"/> /	LEAF COLOR . . . . .	<input type="checkbox"/> / 3 / 4 /
<input checked="" type="checkbox"/> /	PANICLE COLOR . . . . .	<input type="checkbox"/> / 3 / 4 /
<input checked="" type="checkbox"/> /	WINTER COLOR . . . . .	<input type="checkbox"/> / 3 / 1 /
<input type="checkbox"/> /	SHADE TOLERANCE . . . . .	<input type="checkbox"/> / /
<input checked="" type="checkbox"/> /	LEAF WIDTH . . . . .	<input type="checkbox"/> / 3 / 4 /
<input checked="" type="checkbox"/> /	PANICLE SHAPE . . . . .	<input type="checkbox"/> / 3 / 4 /
<input type="checkbox"/> /	COLD INJURY . . . . .	<input type="checkbox"/> / /
<input type="checkbox"/> /	HEAT . . . . .	<input type="checkbox"/> / /
<input type="checkbox"/> /	DISEASE . . . . .	<input type="checkbox"/> / /

200300242

15. GIVE AREA OF ADAPTATION AND INTENDED USE Areas of Mid-Atlantic, New England, Mid-west, Pacific, West and some areas of Transition zone and Great Plains, best for low maintenance and home lawns

16. GIVE AREA TEST RESULTS PRESENTED FROM Crovallis, OR and 1998 NTEP Fine Fescue Trial

17. ADDITIONAL DESCRIPTION \_\_\_\_\_

200300242

**EXHIBIT D.**  
**ADDITIONAL DESCRIPTION OF THE VARIETY**

200300242

Table 1. Heading and Anthesis dates of strong creeping red fescue varieties in 1998. The plants were established in winter 1997. All varieties were established in 3 replications of 20 plants each for 60 plants total. Lot of plants did not matured enough to flower. For all characteristics, 20 measurements per replication were done (i.e. 60 points for all varieties) with no more than 3 measurements for any plant. Means were significantly different by LSD @ 0.05 level.

Variety	Heading Date*		Anthesis Date*	
	50.0%	Mean	50.0%	Mean
<b>SR 5210</b>	131.0	137.0	161.0	163.7
SR 5200E	128.0	130.9	159.0	159.6
Shademaster	131.0	131.4	160.0	161.0
Ensyema	135.0	135.1	159.0	160.7
Flyer	128.0	134.8	159.0	161.0
Boreal	138.0	139.9	163.0	163.1
LSD @ 5%		4.3		2.3

\* Oats/soybean heading and anthesis data in days after January 1.

200300242

Table 2. Heading and Anthesis dates of creeping red fescue varieties in 1999. The plants were established in winter 1997. All varieties were established in 3 replications of 20 plants each for 60 plants total. For all characteristics, 20 measurements per replication were done (i.e. 60 data points for all varieties) with no more than 1 measurement for any plant. Plants were used those in Table 1. Means were significantly different by LSD @ 0.05 level

Variety	Heading Date *		Anthesis Date *	
	50.0%	Mean	50.0%	Mean
<b>SR 5210</b>	106.0	106.6	147.0	148.0
SR 5200E	102.0	99.3	145.0	144.7
Shademaster	102.0	101.4	144.0	145.4
Ensyka	105.0	104.4	145.0	145.9
Flyer	102.0	98.2	144.0	143.4
Boreal	106.0	107.2	146.0	146.7
LSD @ 5%		3.5		1.5

\*Note: Heading and anthesis data in days after January 1.  
(B7-5/8/2007)

200300242

15

200300242

Table 3. Plant characteristics of strong creeping red fescue varieties in 1998. Plants were established in winter 1997 in 3 replications of 20 plants each for 60 plants total. Plants did not get enough days to mature. For all characteristics, 20 measurements per replication were done (i.e. 60 data points for all varieties), with no more than 3 measurements for any plant. Plants used those in Table 1.

Variety	Growth habit 1=erect 5=semi prostr. 9= prostr.	Plant height (cm)	Height (cm)	Flag Leaf		Leaf Color Green 1-9		Subtending Leaf	
				Length (mm)	Width (mm)	1= light 9 = dark	Length (cm)	Width (mm)	
<b>SR 5210</b>	2.4	63.0	24.4	8.8	4.0	6.0	8.4	3.9	
SR 5200E	3.2	68.7	28.3	8.9	3.6	5.1	9.5	3.5	
Shademaster	4.5	63.4	25.3	9.4	3.7	4.8	9.2	3.5	
Ensyiva	3.9	63.4	24.2	8.4	3.6	5.4	8.9	3.6	
Flyer	4.3	59.1	24.8	8.2	3.8	5.3	9.0	3.7	
Boreal	3.7	60.4	26.5	11.8	4.3	6.3	12.0	4.3	
<u>LSD @ 5%</u>	<u>0.7</u>	<u>3.0</u>	<u>2.3</u>	<u>0.9</u>	<u>0.3</u>	<u>0.4</u>	<u>0.9</u>	<u>0.3</u>	

Table 4. Plant characteristics of strong creeping red fescue varieties in 1999. Plants were established in winter 1997. All plants were matured enough to produce flower and seed heads. For all characteristics, 20 measurements per replication were done (i.e. 60 data points for all varieties) with no more than one measurement from any plant. Plants were used those in Table 1. Means were significantly different by LSD @ 0.5 level.

Variety	Growth habit			Flag Leaf			Subtending Leaf			
	1=erect	5=semi prostr.	9= prostr.	Plant height (cm)	Height (cm)	Length (cm)	Width (mm)	1 = light	9= green	Length (cm)
<b>SR 5210</b>	2.2	70.9	30.9	11.4	3.5	6.9	11.0	3.4	3.0	
SR 5200E	3.4	74.2	32.7	12.6	3.5	5.0	12.3	3.0	3.1	
Shademaster	3.4	83.7	33.7	12.4	3.4	5.6	11.5	3.1	3.0	
Ensylva	3.8	72.7	30.9	10.3	3.2	5.7	10.7	3.0	3.4	
Flyer	3.7	82.0	34.6	11.5	3.4	6.5	11.6	3.4	3.5	
Boreal	2.9	76.2	33.0	14.6	3.9	6.8	13.3	3.5	3.5	
LSD @ 5%	0.5	4.4	2.7	1.1	0.3	0.4	1.3	0.3	0.3	

200300242

Table 5. Panicle characteristics of strong creeping red fescues in 1998. Plants used and growing conditions are as specified in Table 3.

Variety	Panicle			Orientation 1= erect, 9 = nodding
	Length (cm) (L:5/8/07)	Tip to node (cm) (L:5/8/07)	Type 1=Op to 3 =comp (L:5/8/07)	
<b>SR 5210</b>	52.5	13.9	1=Op to 3 =comp	1.9
SR 5200E	56.7	14.7	2.0	1.9
Shademaster	53.9	14.0	1.9	2.4
Ensylva	53.7	14.2	2.0	2.5
Flyer	50.7	13.5	2.3	2.8
Boreal	54.4	16.8	1.9	4.2
LSD @ 5%	2.8	0.9	0.5	0.5

200300242

Table 6. Panicle characteristics of strong creeping red fescues in 1999. Plants used and growing conditions are as specified in Table 3.

Variety	Panicle			Orientation 1=erect, 9=nodding
	Length Tip to node (cm)	Tip to branch (cm) 1=Op to 3 =comp	Type	
<b>SR 5210</b>	55.5 <i>(55.5±0.7)</i>	14.0 <i>(14.0±0.3)</i>	1.5	1.3
SR 5200E	58.0	15.3	1.7	1.9
Shademaster	67.7	15.4	1.4	2.3
Ensylva	58.4	14.5	1.7	2.0
Flyer	66.0	15.0	1.7	2.2
Boreal	61.4	16.8	1.6	2.3
LSD @ 5%	4.1	1.3	0.2	0.3

200300242

Table 7. Panicle and seed characteristics of strong creeping red fescues in 1998. Plants and growing conditions are specified in Table 1.

Variety	Panicle Length (cm)	Number of Seed/Panicle	Weight of seed/panicle(gm)	Lemma Length (mm)	Lemma Width (mm)	Awn Length (mm)
SR 5210	13.4	130.0	0.22	6.5	1.17	1.98
SR 5200E	14.5	162.0	0.37	6.6	1.13	2.00
Shademaster	13.3	144.0	0.25	6.6	1.02	2.48
Ensvyva	14.0	140.0	0.27	6.8	1.06	1.73
Flyer	13.4	162.0	0.32	7.0	1.08	2.59
Boreal	15.7	245.0	0.40	7.0	1.04	2.59
LSD @ 5%	0.9	35.0	0.05	0.3	0.06	0.20

TABLE 6. BROWN PATCH (WARM TEMPERATURE) RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS 1/  
2000 DATA

BROWN PATCH RATINGS 1=9; 9=NO DISEASE 2/			
NAME	ME1	ME2	MEAN
SRX 52961	6.3	7.0	6.7
CINDY LOU (ISI FRR 7)	7.0	6.0	6.5
PST-4FR	6.7	6.3	6.5
ABT-CR-3	6.7	5.7	6.2
BAR CF 8 FUS1	5.7	6.7	6.2
ABT-CR-2	5.7	6.3	6.0
JASPER II	6.7	5.3	6.0
SALSA	5.3	6.3	5.8
NAVIGATOR (ISI FRR 5)	6.0	5.3	5.7
PATHFINDER	6.0	5.0	5.5
ROSE (ASC 087)	6.0	5.0	5.5
SHADEMASTER II	5.0	5.7	5.3
SHADEMARK	5.7	4.7	5.2
SR 5210 (SRX 52LAV)	5.0	5.0	5.0
FLORENTINE	5.0	4.7	4.8
PST-EFL	6.0	3.7	4.8
ASC 172	4.0	5.3	4.7
PST-47TOR	4.3	5.0	4.7
DGSC 94	5.7	3.3	4.5
BORZAI	3.0	4.7	3.8
ASC 082	5.0	2.0	3.5
COMMON CREEPING RED	2.7	2.7	2.7
LSD VALUE	2.2	3.1	1.9
C.V. (%)	25.1	37.8	31.7

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
2/ STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 6. BROWN PATCH RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS  
AT RALEIGH (HIGH INPUT), NC 1/  
2001 DATA

NAME	BROWN PATCH RATINGS 1-9; 9=NO DISEASE 2/			MEAN
	JUNE	JULY	AUGUST	
CINDY LOU (CIS FRR 7)	8.0	7.7	7.7	7.8
SRX 52961	7.7	7.3	7.7	7.6
JASPER II	7.7	6.7	7.0	7.1
ABERDEEN (PST-EFL)	7.0	6.7	7.3	7.0
NAVIGATOR (CIS FRR 5)	6.7	6.7	7.3	6.9
ABT-CR-3	6.0	6.3	7.7	6.7
ROSE (ASC 087)	5.0	7.0	8.0	6.7
INVERNESS (PST-47TCR)	5.7	6.7	7.3	6.6
ABT-CR-2	4.3	6.7	8.0	6.3
SR 5210 (SRX 52LAV)	4.7	5.7	7.7	6.0
SALSA	5.3	5.7	6.7	5.9
ASC 172	5.0	5.0	7.3	5.8
SHADEMASTER II	4.0	6.3	7.0	5.8
FLORENTINE	5.0	5.7	6.3	5.7
BARGENA III (BAR CF 8 FUS1)	4.7	5.3	6.7	5.6
PATHEFINDER	3.3	6.0	7.3	5.6
DGSC 94	4.7	5.0	6.7	5.4
PST-4FR	4.3	5.0	6.7	5.3
SHADEMARK	4.3	4.3	7.3	5.3
ASC 082	3.7	5.7	6.3	5.2
BOREAL	3.3	4.3	5.7	4.4
COMMON CREEPING RED	3.0	3.3	4.7	3.7
LSD VALUE	2.3	2.3	2.7	1.8
C.V. (%)	25.8	20.0	15.7	16.1

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

200300242

TABLE #01. BROWN PATCH RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS  
AT RALEIGH (LOW INPUT), NC 1/  
2001 DATA

NAME	BROWN PATCH RATINGS 1=9; 9=NO DISEASE 2/			MEAN
	JUNE	JULY	AUGUST	
SRX 52961	6.7	7.3	7.7	7.2
ABERDEEN (PST-EFL)	6.3	7.3	7.7	7.1
JASPER II	7.0	7.0	7.3	7.1
NAVIGATOR (CIS-FRR 5)	6.7	7.3	7.3	7.1
ABT-CR-3	6.7	7.0	7.0	6.9
SR 5210 (SRX 52LAV)	6.0	7.0	7.3	6.8
CINDY LOU (CIS-FRR 7)	5.7	7.0	7.0	6.6
BARGNA III (BAR CF 8 FUS1)	6.0	6.0	6.0	6.0
ABT-CR-2	4.7	5.0	5.3	5.0
FLORENTINE	4.3	5.3	5.3	5.0
BOREAL	4.7	4.7	5.0	4.8
ASC 172	4.7	4.7	4.7	4.7
COMMON CREEPING RED	4.7	4.7	4.7	4.7
ROSE (ASC 087)	4.3	4.7	4.7	4.6
SHADEMASTER II	3.3	4.0	4.0	3.8
PARTHENDER	3.7	3.7	3.7	3.7
SALSA	3.3	3.7	4.0	3.7
ASC 082	3.7	3.7	3.3	3.6
DGSC 94	2.7	3.7	4.3	3.6
INVERNESS (PST-47TCR)	3.3	3.7	3.7	3.6
PST-4FTR	2.0	4.0	3.7	3.2
SHADEMARK	3.0	2.7	2.7	2.8
LSD VALUE	1.9	1.8	1.8	1.7
C.V. (%)	24.5	21.1	21.5	20.8

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 1. WINTER COLOR RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS  
2001 DATA

NAME	WINTER COLOR RATINGS 1=9; 9=COMPLETE COLOR RETENTION 2/				MEAN
	MD1	NC1	NC2	V A1	
SHADEMASTER II	3.0	5.0	4.0	3.5	6.0
SALSA	4.0	4.3	3.7	3.0	6.0
ROSE (ASC 087)	3.0	4.7	4.7	3.0	5.3
SHADEMARK	3.3	4.0	4.0	3.5	5.7
ABERDEEN (PST-EFL)	3.0	4.7	4.0	4.0	4.1
BARGNA III (BAR CF 8 FUS1)	4.0	3.3	4.0	3.0	4.0
INNERNESS (PST-47ICR)	3.3	4.0	3.7	3.3	3.9
PATHFINDER	3.3	4.0	4.0	3.5	4.3
ABT-CR-2	3.3	4.3	4.0	4.0	3.8
PST-FRR	3.0	4.0	4.3	3.0	4.7
BOREAL	3.0	3.3	4.0	3.0	3.8
DGSC 94	2.3	4.0	4.0	3.3	5.0
ASC 082	3.0	4.0	4.0	3.0	3.9
CINDY LOU (CIS FRR 7)	2.7	4.0	4.0	3.7	4.0
SRX 52961	2.7	4.0	3.7	3.7	3.7
FLORENTINE	2.7	4.3	4.0	3.7	4.0
SR 5210 (SPK 52LAV)	3.0	4.0	4.0	3.0	3.7
NAVIGATOR (CIS FRR 5)	2.3	4.0	3.7	3.0	4.7
COMMON CREEPING RED	2.3	3.0	3.7	3.0	3.5
JASPER II	2.7	4.0	3.7	3.3	3.4
ABT-CR-3	2.3	4.0	3.7	3.0	3.3
ASC 172	2.3	3.3	4.0	3.0	3.1
LSD VALUE	0.8	0.6	0.7	0.8	1.3
C.V. (%)	16.8	9.2	10.8	12.8	14.5

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 12.

WINTER COLOR RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS  
2000 DATA

WINTER COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION 2/

NAME	OK1	VAL	MEAN
ROSE (ASC 087)	6.0	6.3	6.2
SALSA	6.0	5.7	5.8
ABT-CR-3	6.0	5.0	5.5
ASC 082	5.3	5.7	5.5
COMMON CREEPING RED	6.0	5.0	5.5
FLORENTINE	5.7	5.3	5.5
PST-4FR	5.7	5.3	5.5
SHADEMASTER II	5.0	6.0	5.5
BOREAL	6.0	4.7	5.3
CINDY LOU (ISI FRR 7)	5.7	5.0	5.3
PATHFINDER	5.0	5.7	5.3
SR 5210 (SRX 52LAV)	5.7	5.0	5.3
BAR CF 8 FUS1	5.3	5.0	5.2
JASPER II	5.0	5.3	5.2
SHADEMARK	5.3	5.0	5.2
NAVIGATOR (ISI FRR 5)	5.3	4.7	5.0
PST-EFL	5.3	4.7	5.0
ABT-CR-2	5.0	4.7	4.8
DGSC 94	5.3	4.3	4.8
PST-47tCR	5.0	4.3	4.7
ASC 172	5.0	4.0	4.5
SRX 52961	5.0	4.0	4.5
LSD VALUE	0.9	1.2	0.7
C.V. (%)	10.0	14.9	12.5

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
 STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 13, RED THREAD RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS  
AT BLACKSBURG, VA 1/  
2000 DATA

NAME	RED THREAD RATINGS 1-9; 9=NO DISEASE 2/		MEAN
	MAY	AUGUST	
APT-CR-3	6.0	9.0	7.5
CINDY LOU (ISI FRR 7)	6.0	8.7	7.3
NAVIGATOR (ISI FRR 5)	5.7	8.7	7.2
PST-EFL	5.7	8.3	7.0
JASPER II	5.0	8.7	6.8
SRX 52961	5.3	8.3	6.8
SR 5210 (SRX 52LAV)	5.3	8.0	6.7
PATHFINDER	5.0	8.0	6.5
SEADEMASTER II	4.7	8.3	6.5
DGSC 94	4.0	8.7	6.3
APT-CR-2	4.3	8.0	6.2
ASC 172	4.3	7.7	6.0
PST-47TCR	3.7	8.3	6.0
FLORENTINE	3.7	8.0	5.8
ASC 082	3.7	7.7	5.7
BAR CF 8 FUS1	2.3	8.0	5.2
PST-4FR	2.7	7.3	5.0
SALSA	4.0	6.0	5.0
BOREAL	5.0	4.3	4.7
ROSE (ASC 087)	3.7	5.7	4.7
SHADEMARK	2.3	6.3	4.3
COMMON CREEPING RED	3.3	4.7	4.0
LSD VALUE	2.2	1.6	1.1
C.V. (%)	26.8	12.9	11.3

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 1  
RED THREAD RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS 1/  
2000 DATA

NAME	RED THREAD RATINGS 1-9; 9=NO DISEASE			2/	
	ME2	NJ2	NS1	WA3	MEAN
NAVIGATOR (ISI FRR 5)	8.7	9.0	5.0	6.3	7.3
CINDY LOU (ISI FRR 7)	8.3	9.0	4.3	6.7	7.1
ASC 172	8.7	9.0	4.7	5.3	6.9
SR 5210 (SRX 52LAV)	8.0	9.0	4.7	5.7	6.8
ASC 082	8.0	8.0	5.0	6.0	6.8
BOREAL	7.3	8.0	5.7	6.0	6.8
PST-47 <sup>TCR</sup>	8.7	7.3	5.3	5.3	6.7
PST-EFL	8.3	7.3	4.0	6.7	6.6
JASPER II	8.3	7.7	3.7	6.3	6.5
SRX 52961	8.7	7.3	3.7	6.3	6.5
ABT-CR-2	7.7	6.7	5.3	6.0	6.4
COMMON CREEPING RED	7.3	7.0	6.0	5.3	6.4
FLORENTINE	9.0	6.3	4.3	5.7	6.3
SHADEMASTER II	8.7	5.3	5.3	6.0	6.3
SHADEMARK	7.3	6.7	4.7	6.0	6.2
SALSA	7.7	5.0	5.0	6.7	6.1
PATHFINDER	8.7	5.7	4.0	6.0	6.1
ABT-CR-3	7.3	6.7	3.7	6.3	6.0
DGSC 94	8.3	5.0	5.3	5.3	6.0
ROSE (ASC 087)	6.7	6.7	5.7	4.7	5.9
PST-4FR	7.7	4.3	5.7	5.7	5.8
BAR CF 8 FUS1	8.0	4.3	4.7	4.7	5.4
LSD VALUE	2.5	3.3	2.4	1.5	1.3
C.V. (%)	19.6	29.5	31.5	16.4	24.5

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 16. RED THREAD RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS  
AT ORONO (LOW INPUT), ME 1/  
2001 DATA

NAME	RED THREAD RATINGS 1=9; 9=NO DISEASE 2/		
	JULY	OCTOBER	MEAN
SRX 52961	6.7	9.0	7.8
FLORENTINE	7.3	8.0	7.7
CINDY LOU (CIS FRR 7)	7.0	8.0	7.5
NAVIGATOR (CIS FRR 5)	6.7	8.3	7.5
APT-CR-3	6.7	7.7	7.2
BARGENA III (BAR CF 8 FUS1)	5.7	8.0	6.8
PST-4FR	5.0	8.7	6.8
SALSA	6.0	7.7	6.8
SR 5210 (SRX 52LAV)	5.0	8.3	6.7
ASC 082	5.0	7.3	6.2
PATHFINDER	6.0	6.3	6.2
SHADEMASTER II	4.7	7.7	6.2
BOREAL	5.3	6.7	6.0
JASPER II	4.0	8.0	6.0
COMMON CREEPING RED	5.3	6.3	5.8
INVERNESS (PST-47TCR)	4.3	7.3	5.8
ROSE (ASC 087)	4.0	7.7	5.8
APT-CR-2	5.0	6.3	5.7
ABERDEEN (PST-EFL)	4.0	6.7	5.3
ASC 172	4.0	6.7	5.3
SHADEMARK	3.3	7.0	5.2
DGSC 94	3.7	6.0	4.8
LSD VALUE	7.3	5.1	4.4
C.V. (%)	42.8	21.2	23.1

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 1

DOLLAR SPOT RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS 1/  
2000 DATA

NAME	DOLLAR SPOT RATINGS 1-9; 9=NO DISEASE			2/	
	IN1	NJ2	PA1	WI2	MEAN
CINDY LOU (ISI FRR 7)	9.0	8.7	8.0	5.0	7.7
SRX 52961	9.0	8.3	7.7	5.0	7.5
NAVIGATOR (ISI FRR 5)	9.0	7.0	7.7	5.0	7.2
JASPER II	7.7	8.0	7.7	5.0	7.1
PST-EFL	8.0	7.7	7.7	4.7	7.0
SR 5210 (SRX 52LAV)	8.7	7.0	7.7	4.3	6.9
ABT-CR-3	6.0	8.0	7.7	4.3	6.5
ASC 082	7.0	6.7	6.7	3.7	6.0
PST-47TCR	6.7	4.0	7.0	4.7	5.6
ASC 172	6.3	4.3	7.0	3.7	5.3
BOREAL	6.3	3.0	5.7	4.0	4.8
COMMON CREEPING RED	6.0	3.7	5.0	3.7	4.6
FLORENTINE	6.0	3.0	4.7	4.0	4.4
SHADEMASTER II	7.3	2.7	3.3	4.3	4.4
DGSC 94	5.7	3.0	4.7	4.0	4.3
BAR CF 8 FUS1	6.0	3.0	5.0	3.3	4.3
ABT-CR-2	5.7	3.0	4.3	3.3	4.1
ROSE (ASC 087)	5.0	3.0	4.3	3.3	3.9
SHADEMARK	6.0	3.3	1.3	3.7	3.6
PST-4FR	3.3	1.0	5.3	3.0	3.2
PATHFINDER	5.3	1.0	3.0	3.3	3.2
SALSA	2.7	1.7	2.7	3.0	2.5
LSD VALUE	2.5	1.7	2.2	0.9	1.0
C.V. (%)	24.1	23.2	24.3	14.4	23.2

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
 2/ STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE VI

DOLLAR SPOT RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS  
 AT RALEIGH (HIGH INPUT), NC 1/  
 2000 DATA

DOLLAR SPOT RATINGS 1-9; 9=NO DISEASE 2/

NAME	JUNE	AUGUST	MEAN
NAVIGATOR (ISI FRR 5)	8.3	8.0	8.2
ABT-CR-3	8.0	8.0	8.0
JASPER II	8.0	7.3	7.7
SRX 52961	77.7	7.7	7.7
CINDY LOU (ISI FRR 7)	8.7	6.3	7.5
SR 5210 (SRX 52LIAV)	7.7	7.3	7.5
PST-EFL	8.3	6.3	7.3
PST-47TCR	8.3	5.3	6.8
ASC 082	7.0	6.3	6.7
FLORENTINE	7.7	5.7	6.7
SHADEMASTER II	7.3	6.0	6.7
PATHFINDER	7.0	6.0	6.5
ROSE (ASC 087)	7.0	5.7	6.3
ASC 172	6.3	6.0	6.2
ABT-CR-2	6.7	5.3	6.0
BOREAL	6.0	6.0	6.0
BAR CF 8 FUS1	6.3	5.3	5.8
DGSC 94	6.0	4.7	5.3
COMMON CREEPING RED	4.7	5.3	5.0
SHADEMARK	5.3	4.7	5.0
PST-4FR	5.7	4.0	4.8
SALSA	5.0	4.7	4.8
LSD VALUE	1.3	1.6	1.1
C.V. (%)	11.7	15.8	10.8

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
 2/ STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 10,  
DOLLAR SPOT RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS  
AT RALEIGH (LOW INPUT), NC 1/  
2000 DATA

NAME	DOLLAR SPOT RATINGS 1-9; 9=NO DISEASE 2/		
	JUNE	AUGUST	MEAN
SR 5210 (SRX 52LAV)	7.7	7.7	7.7
NAVIGATOR (ISI FRR 5)	6.7	8.0	7.3
CINDY LOU (ISI FRR 7)	7.7	6.7	7.2
JASPER II	7.7	6.7	7.2
ABT-CR-3	7.3	6.7	7.0
FLORENTINE	7.3	6.7	7.0
PST-47TCR	7.0	7.0	7.0
PST-4FR	7.0	7.0	7.0
SRX 52961	7.0	7.0	7.0
PATHFINDER	7.0	6.7	6.8
ASC 172	6.3	7.0	6.7
BAR CF 8 FUS1	7.0	6.3	6.7
DGSC 94	7.0	6.3	6.7
PST-EFL	6.3	7.0	6.7
SHADEMASTER II	7.0	6.0	6.5
ASC 082	6.7	6.0	6.3
BOREAL	6.3	6.3	6.3
ROSE (ASC 087)	6.7	6.0	6.3
ABT-CR-2	6.7	5.7	6.2
SHADEMARK	6.3	5.7	6.0
COMMON CREEPING RED	7.0	4.7	5.8
SALSA	6.3	5.3	5.8
LSD VALUE	2.5	1.4	1.8
C.V. (%)	11.4	11.7	10.0

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 1. SUMMER PATCH RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS 1/  
2000 DATA

SUMMER PATCH RATINGS 1~9; 9=NO DISEASE 2/					
NAME	NJ1	WI2	MEAN		
SRX 52961	9.0	8.3	8.7		
NAVIGATOR (ISI FRR 5)	8.7	8.3	8.5		
CINDY LOU (ISI FRR 7)	8.3	8.0	8.2		
JASPER II	7.7	8.3	8.0		
SR 5210 (SRX 52LAV)	7.3	8.3	7.8		
PST-EFL	7.3	8.0	7.7		
ASC 082	7.7	7.3	7.5		
ABT-CR-3	8.0	6.7	7.3		
SHADEMASTER II	6.7	6.7	6.7		
BAR CF 8 FUSI	7.0	6.0	6.5		
SHADEMARK	6.7	6.3	6.5		
ABT-CR-2	4.7	7.7	6.2		
ASC 172	5.0	7.3	6.2		
PATHFINDER	5.0	7.3	6.2		
DGSC 94	6.3	5.7	6.0		
FLORENTINE	5.7	6.3	6.0		
PST-47TCR	4.3	7.0	5.7		
ROSE (ASC 087)	4.7	6.3	5.5		
PST-4FR	4.7	6.0	5.3		
COMMON CREEPING RED	3.7	6.7	5.2		
BOREAL	2.0	6.3	4.2		
SALSA	2.0	5.7	3.8		
LSD VALUE	2.3	1.8	1.5		
C.V. (%)	23.5	16.2	19.7		

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 20.

PERCENT SUMMER PATCH RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS  
2001 DATA 2 /

NAME	KY1
ASC 172	46.7
BOREAL	43.3
SHADEMASTER	31.7
PST-4FR	30.7
COMMON CREEPING RED	29.0
INVERNESS (PST-47PCR)	27.3
ABT-CR-2	25.3
ASC 082	20.3
FLORENTINE	20.0
PATHEFINDER	19.3
BARGENA III (BAR CF 8 FUS1)	18.3
DGSC 94	18.3
SALSA	16.0
ABERDEEN (PST-EFL)	11.7
ROSE (ASC 087)	10.7
SRX 52961	6.3
SR 5210 (SRX 523LAV)	5.0
NAVIGATOR (CIS FRR 5)	4.3
SHADEMASTER II	4.3
CINDY LOU (CIS FRR 7)	3.7
ABT-CR-3	2.0
JASPER II	0.3
LSD VALUE	19.8
C.V. (%)	68.5

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
 STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).  
 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 2\

MEAN TURFGRASS QUALITY RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS FOR EACH MONTH GROWN AT RALEIGH (NO IRRIGATION), NC 1/  
2000 DATA

NAME	TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURN: MONTHS 1/												MEAN
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
JASPER II	6.3	6.3	6.3	6.7	6.0	4.7	4.0	3.7	4.0	4.3	4.3	4.7	5.1
NAVIGATOR (TSI FRR 5)	6.3	6.7	5.3	6.7	5.3	4.0	4.0	4.3	4.0	4.7	4.7	5.0	5.1
FLORENTINE	7.0	7.0	6.0	7.3	6.0	4.3	4.0	3.7	4.0	3.7	3.7	4.0	5.1
SR 5210 (SIX 52LAV)	6.3	6.3	5.0	6.0	5.0	4.3	4.3	4.3	4.3	4.3	4.3	4.7	4.7
ROSE (ASC 087)	6.7	6.7	6.0	6.7	5.3	3.7	3.7	3.7	3.7	3.7	3.3	4.3	4.8
PATFINDER	6.3	6.3	5.7	6.7	6.0	4.0	3.7	3.7	3.7	3.7	3.7	4.0	4.7
PST-4FR	5.7	5.7	5.3	6.3	6.0	4.0	4.0	3.7	3.7	3.7	3.7	4.3	4.7
SRX 52961	6.3	5.7	5.0	5.3	5.0	4.0	3.7	4.0	4.3	4.3	4.3	4.7	4.7
PST-BFL	6.0	5.7	5.0	5.3	6.0	3.7	3.7	3.7	4.0	4.0	4.3	4.3	4.7
CINDY LOU (TSI FRR 7)	6.0	5.7	5.0	5.7	6.3	4.3	3.7	3.7	4.0	4.0	4.3	4.7	4.7
ABT-CR-3	5.0	5.0	4.3	5.0	5.7	4.0	4.0	3.7	4.3	4.3	4.7	4.3	4.5
BAR CF 8 FUS1	5.7	5.7	4.3	6.0	5.3	4.0	3.7	3.7	3.7	4.0	4.0	4.0	4.5
PST-47TCR	5.7	5.7	5.0	5.7	6.0	4.0	3.7	3.7	3.7	3.3	3.3	3.7	4.0
SHADEMASTER	6.3	6.3	5.7	6.0	5.3	3.3	3.3	3.0	3.0	3.0	3.0	3.7	4.5
ABT-CR-2	6.0	5.3	5.0	6.0	5.7	3.7	3.3	2.7	3.3	3.7	4.0	4.0	4.6
ASC 172	5.0	5.0	4.7	5.3	5.7	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.4
DGSC 94	5.7	5.7	5.0	5.0	5.3	3.7	3.7	3.7	3.7	3.7	3.7	4.0	4.3
ASC 082	5.3	5.3	5.0	5.0	5.7	4.0	3.7	3.7	3.3	3.3	3.3	3.7	4.3
SHADEMASTER II	5.7	5.3	4.3	5.7	6.0	3.7	3.3	3.3	3.3	3.3	3.3	3.7	4.3
SALSA	4.7	5.0	4.3	4.3	4.3	3.0	3.0	2.7	3.0	3.0	3.0	3.3	4.0
COMMON CREEPING RED	4.0	4.3	4.0	4.3	4.3	3.0	3.0	3.0	3.0	2.7	3.0	3.0	3.6
BOREAL	3.3	3.3	3.3	4.0	4.3	3.3	3.3	3.3	3.3	3.0	3.0	3.3	3.5
LSD VALUE	2.2	2.1	1.6	2.0	1.7	1.1	0.9	0.9	1.1	1.3	1.1	1.2	0.9
C.V. (%)	24.5	23.3	19.4	21.8	19.2	17.6	15.4	15.9	18.2	23.3	17.7	17.5	12.1

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
 STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 22.

MEAN TURFGRASS QUALITY RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS FOR EACH MONTH GROWN AT RALEIGH (NO IRRIGATION), NC 1/  
2001 DATA

NAME	TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF; MONTHS 2/												MEAN
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
SRX 52961	4.0	3.7	3.7	4.3	4.0	3.7	4.3	4.7	4.7	4.0	4.7	5.3	4.3
ABERDEEN (PST-EFL)	4.0	4.0	4.0	4.0	4.0	3.3	4.3	4.7	4.3	4.3	4.3	5.0	4.2
SR 5210 (SRX 52LAV)	4.3	4.0	4.3	4.3	4.3	3.3	4.0	4.3	4.3	4.3	4.0	4.0	4.1
CINDY LOU (CIS FRR 7)	3.7	3.7	3.7	4.0	4.0	3.3	4.0	4.0	4.0	4.3	5.0	4.7	4.7
NAVIGATOR (CIS FRR 5)	3.7	3.7	4.0	4.3	4.3	4.0	4.3	4.3	4.0	4.0	4.0	4.0	4.1
JASPER II	3.7	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.7	4.0
ABT-CR-3	3.7	3.3	3.3	4.0	4.0	3.7	4.0	4.0	4.0	4.0	4.0	3.7	3.9
ABT-CR-2	3.7	3.7	3.3	3.7	4.3	3.0	3.0	3.0	3.0	3.7	3.7	4.3	3.8
FLORENTINE	4.0	4.3	4.0	4.0	4.0	3.0	3.3	3.3	3.3	3.3	3.7	4.0	4.7
BARGENA III (BAR CF 8 FUS1)	4.0	4.0	4.0	4.0	4.0	3.3	3.3	3.0	3.0	3.0	3.0	3.0	3.6
INVERNESS (PST-47TCR)	3.3	3.7	4.0	3.7	3.3	2.7	3.0	3.0	3.0	3.3	3.3	3.3	3.5
SHADEMASTER II	4.0	4.7	4.3	4.0	3.7	2.3	2.7	2.7	3.0	2.7	3.0	3.7	3.4
ROSE (ASC 087)	4.3	4.0	4.0	4.7	4.3	3.0	3.0	3.0	2.3	2.3	2.3	3.0	3.4
PST-4FR	4.3	4.3	4.3	4.0	3.3	2.0	2.7	2.3	2.3	2.3	2.3	3.0	3.3
DGSC 94	3.7	4.0	4.0	4.0	3.7	2.3	2.3	2.3	2.3	3.0	3.0	3.0	3.3
SALSA	3.0	3.0	3.3	3.0	3.0	3.0	3.0	3.0	3.0	3.3	3.3	3.3	3.3
ASC 082	3.7	3.7	3.3	3.7	4.0	3.0	3.0	2.7	2.7	2.3	2.3	2.7	3.1
PATHFINDER	3.7	4.0	3.7	4.3	3.7	2.3	2.3	2.3	2.3	2.3	2.3	2.7	3.1
ASC 172	3.7	3.7	3.7	3.7	3.7	3.0	2.7	2.7	2.7	2.3	2.3	2.3	3.1
COMMON CREEPING RED	3.3	3.7	3.7	3.7	3.3	3.0	3.0	3.0	2.7	2.7	2.7	2.3	3.1
BOREAL	4.0	3.7	3.3	4.0	3.3	2.7	2.7	3.0	2.7	2.0	2.0	3.0	3.0
SHADEHAWK	3.7	3.7	3.7	3.7	3.3	2.3	2.3	2.3	2.7	2.7	3.0	2.7	3.0
LSD VALUE	1.0	1.1	1.2	1.2	1.3	0.8	0.8	0.7	1.0	1.3	1.4	1.5	0.7
C.V. (%)	16.9	18.5	19.5	18.1	20.9	15.8	15.6	14.2	18.1	25.5	26.6	26.4	12.4

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.

STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 28, LEAF SPOT RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS 1/  
1999 DATA

NAME	LEAF SPOT RATINGS 1-9; 9=NO DISEASE 2/			MEAN
	ME1	ME2	MJ1	
JASPER II	5.7	8.0	4.0	5.7
ISI FRR 5	4.7	9.0	3.3	5.3
ABT-CR-2	5.7	6.0	4.0	6.0
ISI FRR 7	5.7	7.3	3.7	5.0
PST-47TCR	5.3	7.3	2.7	5.7
PST-4FR	6.0	7.7	2.7	4.3
SRX 52961	5.0	7.3	3.0	5.3
ABT-CR-3	4.7	6.0	3.3	5.2
FLORENTINE	5.3	8.0	2.0	6.3
BAR CF 8 FUS1	5.0	6.7	2.3	4.9
PST-EFL	5.7	6.0	3.0	5.3
DGSC 94	4.3	7.3	2.3	4.8
PATHFINDER	5.0	6.7	3.0	4.7
SHADEMASTER II	5.7	6.0	2.7	4.3
ASC 087	4.7	7.3	2.7	4.0
ASC 082	4.3	4.3	3.3	4.4
SALSA	4.7	8.0	2.0	4.7
ASC 172	4.0	3.0	3.3	4.0
SRX 52LAV	4.0	5.7	2.0	4.3
COMMON CREEPING RED	2.7	5.0	3.3	4.0
BOREAL	3.3	4.3	2.7	3.1
SHADEMARK	3.0	4.7	2.0	3.0
LSD VALUE C.V. (%)	1.9 25.0	4.0 38.3	0.9 18.6	1.4 1.9-2 31.4

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 24. LEAF SPOT RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS 1/  
2000 DATA

NAME	LEAF SPOT RATINGS 1-9; 9=NO DISEASE 2/
NJ2	
JASPER II	5.7
SRX 52961	5.3
ABT-CR-2	5.0
CINDY LOU (ISI FRR 7)	5.0
PST-EFL	5.0
ABT-CR-3	4.7
FLORENTINE	4.7
ASC 082	4.3
DGSC 94	4.3
PATHEFINDER	4.3
PST-47TCR	4.3
NAVIGATOR (ISI FRR 5)	4.0
PST-4FR	4.0
COMMON CREEPING RED	
SHADEMASTER	3.7
ASC 172	3.3
SR 5210 (SRX 52LAV)	3.3
SALSA	3.0
SHADEMASTER II	3.0
BAR CF 8 FUSI	2.7
ROSE (ASC 087)	2.7
BOREAL	2.0
LSD VALUE	1.4
C.V. (%)	21.1

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

TABLE 25,

PINK SNOW MOLD RATINGS OF STRONG CREEPING RED FESCUE CULTIVARS 1/  
2000 DATA

PINK SNOW MOLD RATINGS 1=9; 9=NO DISEASE 2/

NAME	ME2
ABT-CR-3	8.7
PATHFINDER	8.7
SRX 52961	8.7
ABT-CR-2	8.3
CINDY LOU (ISI FRR 7)	8.3
PST-4FR	8.3
BAR CF 8 FUS1	8.0
DGSC 94	8.0
FLORENTINE	8.0
NAVIGATOR (ISI FRR 5)	8.0
PST-47TCR	8.0
JASPER II	7.7
ROSE (ASC 087)	7.7
PST-EFL	7.0
SALSA	7.0
ASC 082	6.7
ASC 172	6.7
SHADEMASTER II	6.7
COMMON CREEPING RED	6.3
SR 5210 (SRX 52LAV)	6.3
BOREAL	6.0
SHADEMARK	5.3

LSD VALUE	1.7
C.V. (%)	14.5

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
 STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

200300242

**EXHIBIT E**  
**STATEMENT OF THE BASIS OF OWNERSHIP**

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Seed Research of Oregon	SRX 52LAV	SR 5210
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) 27630 Llewellyn Rd.	5. TELEPHONE (Include area code) 541-758-9115	6. FAX (Include area code) 541-752-2065
	7. PVPO NUMBER <b>200300242</b>	

8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain.  YES  NO

A royalty is paid to Rutgers University for their contribution to the germplasm used in the development.

9. Is the applicant (individual or company) a U.S. national or U.S. based company?  
If no, give name of country  YES  NO

10. Is the applicant the original owner?  YES  NO If no, please answer one of the following:

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

YES  NO If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?

YES  NO If no, give name of country

11. Additional explanation on ownership (if needed, use reverse for extra space):

**PLEASE NOTE:**

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0065. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal opportunity employer.